

# Notice of Allowability

Application No.

10/787,519

Examiner

Steven J. Ganey

Applicant(s)

KIME, JAMES A.

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed February 24, 2006.
2. ☒ The allowed claim(s) is/are 1-44.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. The application has been amended as follows:

In the claims:

Claim 1, in lines 6, 15 and 20, the phrase --snow/ice treatment-- has been inserted before the word "liquid".

Claim 1, line 10, the phrase --at least one-- has been inserted before the phrase "streamer nozzle".

Claim 1, line 13, the phrase "said pavement surface" has been changed to --said roadway surface--.

Claim 1, line 20, the phrase "said nozzle" has been changed to --said at least one streamer nozzle--.

Claim 1, line 20, the phrase "said surface" has been changed to --said roadway surface--.

Claim 2, line 2, the phrase --at least one-- has been inserted before the word "streamer".

Claim 2, line 3, the phrase "said liquid" has been changed to --said snow/ice treatment liquid--.

Claim 2, line 3, the phrase “said quantity of liquid” has been changed to --said liquid quantity--.

Claim 3, line 2, the phrase --at least one-- has been inserted before the phrase “streamer nozzle”.

Claim 3, line 3, the phrase “said liquid” has been changed to --said snow/ice treatment liquid--.

Claims 13, 14 and 16, line 3, the phrase “said pavement surface” has been changed to --said roadway surface--.

Claim 17, line 3, the phrase “said liquid” has been changed to --said snow/ice treatment liquid--.

Claim 18, line 12, the phrase “said pavement surface” has been changed to --said roadway surface--.

Claim 18, line 22, the phrase “said liquid” has been changed to --said snow/ice treatment liquid--.

Claim 18, line 23, the word “pavement” has been changed to --roadway--.

Claim 18, line 24, the phrase “said liquid” has been changed to --said snow/ice treatment liquid--.

Claim 18, line 26, the phrase “said target volume per unit length of pavement of said liquid” has been changed to -- said target volume of said snow/ice treatment liquid per unit length of roadway--.

Claim 22, line 4, the phrase “said pavement surface” has been changed to --said roadway surface--.

Claim 22, lines 12 and 13, the phrase "said liquid per unit length of pavement" has been changed to -- said snow/ice treatment liquid per unit length of roadway--.

Claim 22, line 15, the phrase "said liquid" has been changed to -- said snow/ice treatment liquid per unit length of roadway--.

Claim 24, line 4, the phrase "said pavement surface" has been changed to --said roadway surface--.

Claim 24, lines 12 and 13, the phrase "said liquid per unit length of pavement" has been changed to -- said snow/ice treatment liquid per unit length of roadway--.

Claim 24, line 16, the phrase "said liquid" has been changed to -- said snow/ice treatment liquid per unit length of roadway--.

Claim 31, line 3, the phrase "said pavement" has been changed to --said roadway--.

The above changes were done to maintain proper antecedent basis throughout the claims.

Claim 35, line 5, the phrase "said predetermined number" has been changed to --a predetermined number--.

The above change was done since this was the first instance that such alternate streamer nozzles were introduced into the claims and to provide proper antecedent basis.

Claim 35, line 9, the phrase "said pavement surface" has been changed to --said roadway surface--.

Claim 35, line 11, the phrase "said predetermined number" has been changed to --a predetermined number--.

The above change was done since this was the first instance that such nozzle conduits were introduced into the claims and to provide proper antecedent basis.

Claim 35, lines 13, the phrase --said predetermined number of rearwardly directed-- has been inserted before the phrase “alternate streamer nozzles”.

Claim 35, lines 18, the phrase --array of said predetermined number of rearwardly directed-- has been inserted before the phrase “alternate streamer nozzles”.

The above changes were done provide proper antecedent basis and to remove any double inclusion issues.

Claim 35, line 19, the phrase “said liquid per unit length of pavement” has been changed to -- said snow/ice treatment liquid per unit length of roadway--.

The above change was done to maintain proper antecedent basis throughout the claims.

Claim 37, line 1, the phrase --said predetermined number of rearwardly directed-- has been inserted before the phrase “alternate streamer nozzles”.

The above changes were done provide proper antecedent basis and to remove any double inclusion issues.

Claim 38, line 13, the phrase “said pavement surface” has been changed to --said roadway surface--.

Claim 38, line 26, the phrase “said liquid per unit length of pavement” has been changed to -- said snow/ice treatment liquid per unit length of roadway--.

Claim 38, line 28, the phrase --said plurality of spaced apart rearwardly directed-- has been inserted before the phrase “streamer nozzles to effect expression”.

Claim 38, line 28, the phrase --spaced apart rearwardly directed-- has been inserted before the phrase “streamer nozzles at a”.

Claim 38, line 28, the phrase “said liquid” has been changed to --said snow/ice treatment liquid--.

Claim 38, line 30, the phrase “combined volume per unit length of pavement” has been changed to --combined volume of said snow/ice treatment liquid per unit length of roadway--.

Claim 38, line 31, the phrase --said snow/ice treatment liquid per unit length of roadway-- has been added after the phrase “said target volume”.

Claim 40, line 2, the phrase --spaced apart rearwardly directed-- has been inserted before the phrase “streamer nozzles”.

Claim 41, line 2, the phrase --spaced apart rearwardly directed-- has been inserted before the phrase “streamer nozzles”.

Claim 42, line 3, the phrase --spaced apart rearwardly directed-- has been inserted before the phrase “streamer nozzles”.

Claim 43, line 2, the phrase --spaced apart rearwardly directed-- has been inserted before the phrase “streamer nozzles”.

The above changes were done to maintain proper antecedent basis throughout the claims.

Claim 44, line 26, the phrase “said liquid per unit length of pavement” has been changed to -- said snow/ice treatment liquid per unit length of roadway--.

Claim 44, line 10, the phrase “said liquid” has been changed to --said snow/ice treatment liquid--.

Claim 44, lines 12 and 13, the phrase “combined volume per unit length of pavement” has been changed to --combined volume of said snow/ice treatment liquid per unit length of roadway--.

Claim 44, line 13, the phrase --said snow/ice treatment liquid per unit length of roadway-- has been added after the phrase “said target volume”.

The above changes were done to maintain proper antecedent basis throughout the claims.

3. The following is an examiner’s statement of reasons for allowance of claims 1-17: The prior art did not teach or suggest a method of treating the surface of a roadway as claimed by the applicant, specifically a method comprising the steps of providing at least one streamer nozzle having an input, a nozzle axis and an output with a nozzle effective diameter, mounting the at least one streamer nozzle generally about the region established by the vehicle width in an orientation wherein the nozzle output is rearwardly, said nozzle axis extends substantially parallel with the roadway surface and vehicle forward direction and is located in spaced adjacency with said roadway surface and driving the pump assembly in correspondence with the monitored forward velocity and the nozzle effective diameter at a pump speed effective to express the snow/ice treatment liquid from the at least one streamer nozzle with a fluid flow velocity vector substantially parallel with the road surface and corresponding with the vehicle forward velocity, together in combination with the other claimed method steps of applicant’s

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invention and in view of applicant's convincing arguments presented on page 14, line 15 through page 15, line 5.

4. The following is an examiner's statement of reasons for allowance of claims 18-37: The prior art did not teach or suggest a snow/ice control apparatus for treating the surface of a roadway as claimed by the applicant, specifically an apparatus comprising a nozzle assembly mountable upon the vehicle including a nozzle support extending in spaced adjacency with the roadway surface and one or more streamer nozzles, including a left streamer nozzle, each having an input, a nozzle axis and a nozzle effective diameter, the left streamer nozzle being supported by the nozzle support laterally from the left wheel track in closely spaced adjacency with the roadway surface in a rearwardly directed orientation wherein the nozzle axis thereof extends substantially parallel with the roadway surface and vehicle direction and a control assembly responsive to the vehicle velocity to control the motor assembly, when activated, in correspondence with a target volume of the snow/ice treatment liquid per unit length of roadway, the output of the first pump and the effective diameter of the left streamer nozzle, to effect expression of the snow/ice treatment liquid from the left streamer nozzle at a velocity having a vector generally parallel with the roadway surface substantially corresponding with the vehicle velocity and at the target volume of the snow/ice treatment liquid per unit length of roadway, together in combination with the other claimed features of applicant's invention and in view of applicant's convincing arguments presented on page 16, line 30 through page 17, line 15.

5. The following is an examiner's statement of reasons for allowance of claims 38-44: The prior art did not teach or suggest a snow/ice control apparatus for treating the surface of a roadway as claimed by the applicant, specifically an apparatus comprising a nozzle assembly



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mountable upon the vehicle including a nozzle support extending in spaced adjacency with the roadway and extending rearwardly of the wheels along the vehicle track width and a plurality of spaced apart rearwardly directed streamer nozzles of given number each having an input, a nozzle axis and a nozzle effective diameter, each streamer nozzle being supported by the nozzle support in closely spaced adjacency with the roadway surface in an orientation wherein the nozzle axis thereof extends substantially parallel with the roadway surface and vehicle forward direction and a control assembly responsive to the vehicle velocity to control the motor assembly in correspondence with a target volume of the snow/ice treatment liquid per unit length of roadway, the output of the first pump and the sum of the effective diameters of the given number of the plurality of spaced apart rearwardly directed streamer nozzles to effect expression of the snow/ice treatment liquid from the plurality of spaced apart rearwardly directed streamer nozzles at a velocity having a vector parallel with the roadway surface substantially corresponding with the vehicle velocity and with a combined volume of the snow/ice treatment liquid per unit length of roadway corresponding with the target volume of the snow/ice treatment liquid per unit length of roadway, together in combination with the other claimed features of applicant's invention and in view of applicant's convincing arguments presented on page 18, lines 7-25.

6. The closest prior art being Jacques, Kasinskas, Yoshizawa, Oligschlaeger, Brown et al and Solie et al, however, none of the above references teaches or discloses the above claim limitations or combinations thereof and it would not have been obvious to one having ordinary skill in the art at the time the invention was made to modify the above references to provide such limitations and combinations thereof.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven J. Ganey whose telephone number is 571-272-4899. The examiner can normally be reached on 7:00-5:00; M,Tu, W and Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on 571-272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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